

Title (en)
High precision analog to digital converter

Title (de)
Hochpräzisions-Analog-zu-Digitalwandler

Title (fr)
Convertisseur analogique-numérique de haute précision

Publication
EP 2026468 A3 20090812 (EN)

Application
EP 08166543 A 20030430

Priority
• EP 03721907 A 20030430
• US 14250302 A 20020510

Abstract (en)
[origin: EP2026468A2] An analog to digital converter (ADC) includes a cross switch array coupled between an input switch array and an integrator configured to alternately transfer charges from a first input capacitor and a second input capacitor to a first integration capacitor and a second integration capacitor thereby improving linearity problems caused by capacitor mismatching. The cross switch array may also be configured to transfer charges from the first input capacitor to the first integration capacitor and from the second input capacitor to the second integration capacitor during a first charge transfer time interval, and from the first input capacitor to the second integration capacitor and from the second input capacitor to the first integration capacitor during a second charge transfer time interval. A sensing system including and ADC consistent with the invention is also provided. Various methods of transferring charges in an ADC are also provided.

IPC 8 full level
H03M 1/12 (2006.01); **H03M 3/02** (2006.01)

CPC (source: EP US)
H03M 3/34 (2013.01 - EP US); **H03M 3/43** (2013.01 - EP US); **H03M 3/456** (2013.01 - EP US)

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[X] US 5323158 A 19940621 - FERGUSON JR PAUL F [US]

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